

**OFFICE OF SURFACE MINING RECLAMATION AND
ENFORCEMENT**

Annual Evaluation Summary Report

for the

Regulatory Program

Administered by the Land Quality Division

of the

Wyoming Department of Environmental Quality



for



Evaluation Year 1997

(October 1, 1996 to September 30, 1997)

February, 1998

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I. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSM) in the Department of the Interior. SMCRA provides authority to OSM to oversee the implementation of and provide Federal funding for State regulatory programs that have been approved by OSM as meeting the minimum standards specified by SMCRA. This report contains summary information regarding the Wyoming Program and the effectiveness of the Wyoming program in meeting the applicable purposes of SMCRA as specified in section 102. This report covers the period of October 1, 1996 to September 30, 1997. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the Casper Field Office.

The following list of acronyms is used in this report:

ASCM	Alternate Sediment Control Measures
AVF	Alluvial Valley Floor
AVS	Applicant Violator System
CFO	Casper Field Office
CHIA	Cumulative Hydrologic Impact Assessment
DEQ	Department of Environmental Quality
EQC	Environmental Quality Council
EY	Evaluation Year
LQD	Land Quality Division
OSM	Office of Surface Mining Reclamation and Enforcement
PHC	Probable Hydrologic Consequence
PRBRC	Powder River Basin Resource Council
RSI	Random Sample Inspection
SMCRA	Surface Mining Control and Reclamation Act of 1977
TDN	Ten-Day Notice
WQD	Water Quality Division
WRCC	Western Regional Coordinating Center
WOC	Wyoming Outdoor Council
WWF	Wyoming Wildlife Federation

II. Overview of the Wyoming Coal Mining Industry

Almost 92 percent of the coal mined currently in the State comes from surface mines in the Powder River Coal Basin near Gillette, Wyoming. More than 99 percent of the coal production comes from surface mines and most of the State's coal is mined in the Powder River Basin. Until 1954, underground mines out-produced surface mines, but in that year surface mines began to dominate production. By the late 1960's, surface coal mining production in the Powder River Basin became a major contributor to the Nation's total coal production. Coal-bearing formations

underlie more than 40,000 square miles, or approximately 41 percent of Wyoming's total land area. The coal mining industry directly employs approximately 4,400 people with substantial income and secondary employment in the State.

The Wyoming Geological Survey estimates the quantity of Wyoming open pit coal reserves is in excess of 26.3 billion tons; an additional 38.3 billion tons of coal reserves can be recovered by underground mining methods. Coal seams in the Wasatch Formation and the underlying Fort Union Formations often exceed 100 feet in thickness with 30 to 80 foot seams being common; 220 foot thick seams have been uncovered. Wyoming coals range from lignite to high volatile A bituminous in rank with the majority of the coal produced being sub-bituminous. Wyoming has the largest reserves of "compliance coal" in the lower 48 States; that is coal of such high quality that utility companies can burn the coal in power plants without expensive scrubbers to remove sulphur dioxide emissions.

Forty-one (41) active coal mining operations are permitted in Wyoming; 36 are surface operations, three (3) are underground operations, and two (2) are in-situ operations. In addition, there is one (1) permit for a dragline move from one mine to another. Three (3) exploration permits are currently in effect within the State. The two in situ operations are permitted under the State's program provisions for research and development. The dragline move and in-situ operations are listed as "other facilities" in Table 2 of this report.

During the past year, there have been substantial changes of ownership and control of coal mines in the Powder River Basin. Companies such as Kennecott Energy, Peabody Coal, and PacifiCorp have purchased or are considering purchasing several mines in the Powder River Basin. Mines such as ARCO's Black Thunder mine (largest mine in Wyoming) and Coal Creek mine are for sale. Speculation is that one or more of the afore mentioned companies is interested in ARCO's properties. The trend in the ownership and control of mines in Wyoming is toward consolidation under fewer and larger corporations.

III. Overview of the Public Participation Opportunities in the Oversight Process and the State Program

A. OSM Outreach Efforts.

The Casper Field Office (CFO) actively encourages public involvement in the Wyoming oversight and regulatory program. This includes CFO initiated contacts with citizen groups and participation in industry activities. Specifically, CFO has visited citizens representing the Powder River Basin Resource Council (PRBRC), Wyoming Outdoor Council (WOC), Wyoming Wildlife Federation (WWF), and the Wyoming Mining Association (WMA). The purpose of these contacts is to notify these groups of OSM's activities and to provide an opportunity to interested parties to suggest how OSM's oversight role can assist in improving the State's regulatory program. During the evaluation period, several coal companies took an active interest in the oversight process and requested material such as the Performance Agreement, Specific

Oversight Topic Reports and previous Annual Reports. CFO also participated in technical meetings such as the Gillette Area Groundwater Monitoring Organization (GAGMO), which consists of hydrologists representing several Powder River Basin coal mines. This group focuses its attentions on the hydrologic issues in the Powder River Basin coal field, and shares data and other information with the participating members.

CFO has a good working relationship with the PRBRC, WOC and WWF. These organizations are actively involved in OSM and State permitting and inspection oversight activities. Such involvement has resulted in helpful changes in the State program, thus improving the overall quality of the program. Examples include development of shrub density standards, and public participation in in-situ mining permitting. During the 1996 evaluation, PRBRC expressed concerns and had questions regarding the reclamation bonding program in Wyoming. In response, a bonding workshop was suggested by OSM. LQD organized and presented the workshop for members of the PRBRC.

CFO held public meetings; however, there was little public participation. As an alternative for EY 1998, CFO has approached citizen organizations and offered to give a presentation focused on the activities that transpired during the evaluation year. During the presentation, CFO will seek input from these organizations regarding future improvements.

B. Wyoming Outreach Efforts

LQD has an advisory board (Land Quality Division Advisory Board) that provides recommendations to the Land Quality Division through a public forum. The Environmental Quality Council (EQC) rules on regulatory matters for all Divisions within the Department (including LQD), and also serves as the administrative hearings board for all Divisions (i.e., Land Quality, Air Quality and Water Quality Divisions) in DEQ. Wyoming's outreach efforts include, but are not limited to LQD Advisory Board meetings, and Environmental Quality Council hearings and board meetings. LQD has met on several occasions with the special interest groups (PRBRC, WOC, WWF, and WMA) to discuss their concerns and issues.

LQD also has public participation during the permitting, bond release, and enforcement processes. During the permitting and bond release processes notices are published and comments are solicited. Citizen complaints are investigated as part of the enforcement process. Previous oversight reviews have found that LQD is highly receptive to the concerns of public, industry and citizen groups. DEQ also has an internet website at: "<http://deq.state.wy.us/>" with information for the public on permits, current rules, and proposed rule changes.

CFO monitors DEQ's and LQD's meetings and outreach efforts and believe the state does a good job interacting with the citizens.

IV. Major Accomplishments/Issues/Innovations in the Wyoming Program

A. Accomplishments

The Wyoming DEQ-LQD continues to administer an excellent Title V program. As mentioned above, Wyoming held a workshop for the PRBRC to explain the bonding procedures and calculations used to set bonds for the mining companies.

B. Issues

In previous annual reports (EY1990, 1992, 1993 and 1994), contemporaneous reclamations was identified as an issue. At that time, LDQ's approved program did not include the current promulgated rules that were being implemented by the State. On June 30, 1994, OSM approved LQD's current contemporaneous reclamation rules.

In 1996, the Powder River Basin Resource Council (PRBRC) identified contemporaneous reclamation as a concern. Specifically, PRBRC felt that the coal industry was lagging behind in its responsibility to reclaim the land concurrently with the advancement of the coal removal.

SMCRA requires reclamation to be as "contemporaneous as possible." Wyoming's standards for contemporaneous reclamation are based on a mine by mine basis as specified in each approved permit. The recent approved program amendment regarding contemporaneous reclamation specifies that each permit contain detailed schedules for each reclamation sequence for comparison with "actual field conditions to determine compliance." (Administrative Record WY-25-01).

CFO and LQD reviewed four mine sites and compared the on-the-ground reclamation with the approved permits. CFO and LQD found that the four mine permits did not clearly and concisely set time schedules and requirements for contemporaneous reclamation. The State has agreed to review the required schedules in all permits. Furthermore, the State has agreed to revise the annual reporting format to include information regarding contemporaneous reclamation progression.

C. Innovations

The Wyoming DEQ-LQD is a pioneer in the development of electronic permitting. Wyoming has developed standard formats for recording and submitting data to LQD for review of permit applications. A pilot study indicated a significant decrease in review and issue resolution time as well as, the overall time to issue a permit.

V. **Success in Achieving the Purposes of SMCRA as Determined by Measuring and Reporting End Results**

To further the concept of reporting end results, the findings from performance standards and public participation evaluations are being collected for a national perspective in terms of the number and extent of observed off-site impacts, the number of acres that have been mined and reclaimed and which meet the bond release requirements for the various phases of reclamation, and the effectiveness of customer service provided by the State. Individual topic reports are available in the Casper Filed Office which provide additional details on how the following evaluations and measurements were conducted.

A. **Off-Site Impacts:**

There five occurrences of off-site impacts resulting from surface coal mining and reclamation operations in Wyoming during the evaluation year. These off-site impacts included archaeological sites impacted by two different mines, sedimentation, flyrock, and mining outside the permit. The State issued notices of violation for each occurrence. The State took appropriate action regarding all violations.

Impacts to archaeological sites occurred at two different mines sites where the mining operations destroyed known cultural resource sites. The companies had assured in the permit, that these sites would not be disturbed without appropriate coordination and mitigation with the State. These sites were not surveyed sufficiently to determine their cultural significance. It was assumed that there was moderate impact. The State Historic Preservation Officer (SHPO) is very concerned about these impacts and is discussing the protection of other sites with OSM and LQD.

The remaining impacts (flyrock, sedimentation, and mining off-site) are considered minor impacts.

B. **Bond Release:**

Table 5 (Appendix A, page T-5) depicts the bond release status for the evaluation period. One (1) acre was released from phase III reclamation liability. In 1996 approximately 1,098 acres were approved for phase II bond release. Cumulatively, there are approximately 33,699 acres permanently reclaimed that have had phase I & II bond release and are in various stages of the 10 year liability period, awaiting phase III release (Appendix A, Table 6, Page T-6).

C. Reclamation Success:

Two mines received Excellence in Surface Mining Awards. Jacobs Ranch mine received the Directors Award for sustained performance in reclamation and the Buckskin mine received an award for its reclamation of an alluvial valley floor (AVF).

In Wyoming, only one acre was released from phase I bond release. Approximately 94,000 acres are currently bonded (Table 5) . During the evaluation period, approximately 1,100 acres were permanently reclaimed (Table 6).

VI. OSM Assistance

OSM is providing both financial and technical support to LQD in developing an updated cumulative hydrologic impact assessments (CHIAs) for the Powder River Basin coal field. In addition to the Administrative and Enforcement (A&E) and Cooperative Agreement grants (Table 9), OSM has provided \$966,106 of funding to date for this project which included TIPS equipment and funding for the Wyoming electronic permitting initiative. The three efforts are interrelated and much of the use of equipment and efforts overlapped. OSM's technical support has been in the form of the equipment, software training, and software support. The need for this project has been documented in earlier Annual Reports (1990 and 1991). LQD in cooperation with other State and Federal agencies and the University of Wyoming has developed a prototype computerized model and data base to assist in predicting the cumulative hydrologic impacts of mining. Funding from the cooperating parties has diminished and work on the computer model has terminated. Even though funding has ceased, LQD has committed to performing the assessments on all five watersheds in the Powder River Basin. The data base developed as a part of this effort will be used to develop CHIAs for each watershed.

Also, OSM has offered training courses to State regulatory authority employees. BTTI and TIPS provided a wide range of courses including computer software in which Wyoming has actively participated.

VII. General Oversight Topic Reviews

This section contains a brief description of the topics reviewed during the evaluation year. Major accomplishments, issues and innovations are addressed in Section IV of this report. The detailed documentation of all reviews are available in the central files at the Casper Field Office.

A. NEW TOPICS

The evaluation was conducted to determine if problems exist in the field. When no problems are observed in the field, the evaluation is concluded. However, when problems such as failure to comply with the State's statutes and rules were identified, the team investigated the problem and traced the source(s).

Topsoil and Revegetation : Topsoil and revegetation are closely dependent upon each other and for that reason, the two topics were combined and the same sites were reviewed. There have been no concerns regarding topsoil or revegetation raised by the public or OSM. Based on the results from the team's observations of topsoil and revegetation in the field, there were no problems with those portions of Wyoming's regulatory program. Therefore, no further evaluation is needed.

Contemporaneous Reclamation: The PRBRC identified contemporaneous reclamation as a potential problem in Wyoming during CFO's outreach efforts during the 1996 evaluation period.

There are no programmatic standards for contemporaneous reclamation in the Wyoming program. Instead, contemporaneous reclamation is defined for each operation and unique site-specific standards, are set for each operation and inserted in the approved permit. These are based on differing mine conditions and must meet guidelines of the Wyoming regulation; namely that rough backfilling and grading follow coal removal as contemporaneously as possible based upon mining conditions. Further, each permit must contain a proposed schedule for backfilling and grading with supporting analysis. Because there are no program time and distance standards, the provisions of the permit for reclamation scheduling are extremely important; they are the sole guideline for defining "contemporaneous reclamation" for the operation.

Most of the mines in Wyoming existed prior to 1985; however, several surface mines started during this time, initially creating large areas of disturbance for support facilities. Realizing that these support and pit areas are required to perform mining operations for portions of or the entire life of the mine, these areas are not expected to be permanently reclaimed until their usefulness

has expired. Therefore, the support and pit areas were subtracted from the total disturbed area in Table 6 (Appendix A, Page T-6) to identify the net disturbance that could be reclaimed. Assuming a balance should exist between the reclamation and net disturbance, a ratio is provided on Table 6 that quantifies the relationship between reclamation and net disturbance. Figure 1. illustrates the net disturbance and total reclamation on a year by year basis in Table 6.

FIGURE 1. Net Disturbance and Reclamation (Year By Year)

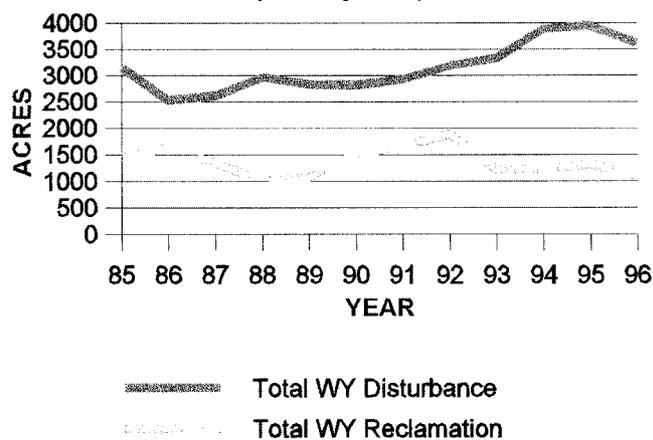


Figure 2. illustrates the ratio of reclaimed to net disturbed acreage. A ratio of 1.0 means that the reclamation and net disturbance are equal. A ratio higher than 1.0 means that the reclamation is greater than the net disturbance, while a ratio less than 1.0 means the opposite. Figure 2. Illustrates the ideal reclamation to net disturbance on a year by year basis.

**FIGURE 2. Ratio: RECL. To DIST.
(Year By Year)**

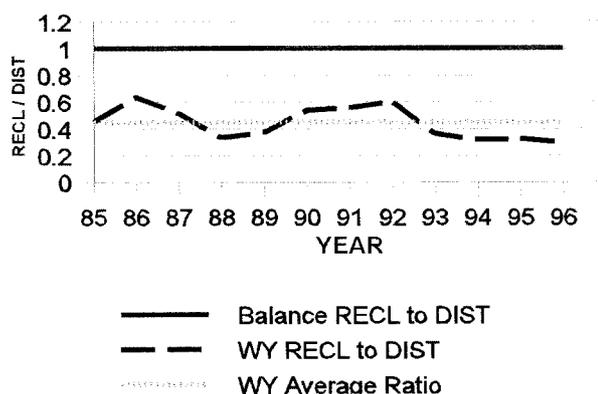
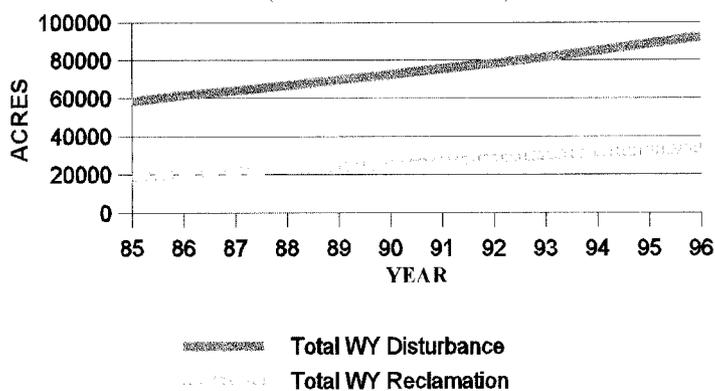


Figure 3. illustrates the total cumulative disturbance and reclamation based on information obtained from the permit annual reports from 1985 to 1996. The total disturbance is 92,375 acres and reclamation is 33,699 acres.

**FIGURE 3. Disturbance and Reclamation
(Total Cumulative)**



In general, on the basis of the mines sampled, CFO found the permits did not achieve the requirements of the regulations. The permits did not have the required detailed time schedules for backfilling and grading nor was sufficient information available as supporting analysis to conclude that mines were being reclaimed as contemporaneously as practicable.

Permit provisions for contemporaneous reclamation at the four mines reviewed were confusing and contradictory. One mine was missing portions of the reclamation schedule. One permit altered map time schedules by text. One permit incorporated a provision to allow changes to the reclamation schedule without applying for a revision.

Actual reclamation progress in the Powder River Basin can be measured by comparing the area of total reclamation with the total area of disturbance; excluding from the disturbed area all acreage that is part of the active mining operation and therefore unavailable for reclamation. Approximately 45 percent of all disturbed acreage available for reclamation (total to date) has been completely reclaimed and permanently re-seeded for the four mines sampled.

The disturbances for each of the mines which are associated with support facilities vary from a low of 903 acres to a high of 2182 acres; however, as a percentage of total disturbance, the variance between operations is relatively low ranging from 43 to 57 percent and averages 51 percent. While reclamation status at the four mines is not uniform; it varies considerably from a low of 20 percent of the available disturbed acreage to a high of 62 percent.

Assuming these mines are representative of operations in the Powder River Basin, the totals for the mines (2,761 acres reclaimed of 6,121 acres available) suggest that about 45 percent of the acreage available for reclamation in the Powder River Basin has been completely reclaimed.

Wyoming Land Quality Division (LQD) has agreed to update its review procedures and guidance for contemporaneous reclamation to include separate contemporaneous reclamation subsections with clear and unambiguous time schedules for each major reclamation milestone. This is similar to the commitment made by LQD in 1990.

During the 1998 evaluation year, CFO will monitor progress. During the following evaluation period (EY1999), CFO will re-examine contemporaneous reclamation.

Bonding:

OSM bond specialist evaluated the bond documents and adequacy of the reclamation bonds administered by LQD. Emphasis was placed on the State's self-bonding program. PRBRC expressed concern during OSM's out reach program regarding the adequacy and security of self-bonds approved by the State. Four permits were sampled. Two of the permits were evaluated for both administrative and bond adequacy aspects, one for administrative only, and the fourth for bond adequacy only.

No problems were found. However, one of the permits had recently changed ownership and it was noted that the new holding corporation was not as financially strong as the previous owners. In the topic report, it is recommended the State require updated financial data during the next review as it may affect self-bonding.

The bond amounts for the three mines reviewed were found adequate and the LQD Guidelines are being implemented properly. The continued use of the Guideline should produce adequate bond amounts.

Probable Hydrologic Consequences (PHC) Verification: During mining operations, the mine operators are required to collect hydrologic monitoring data. Wyoming coal operators have been preparing and revising PHC predictions based on available baseline data recorded at the time of the permit application. LQD has developed a study to evaluate the PHC predictions using the monitoring data. OSM hydrologist are currently

conducting the study and are about 70 percent complete. The study should be completed during the early part of the 1998 evaluation period. Therefore, no results are being reported at this time.

B. MONITORING TOPICS

Monitoring topics are issues identified in previous oversight evaluations. Due to the long term nature of these topics, the final evaluation cannot be resolved during a single evaluation period.

Permitting, CHIA's

In the 1992 Annual Evaluation year, CFO identified three deficiencies with some CHIA documents: 1) not all hydrologic impact projections were based on the most recent, readily available technical/baseline information; 2) assessments of hydrologic impacts were not adequate because the existing CHIA was general in scope and not specific drainage basins; and, 3) the LQD did not have a formalized plan to develop comprehensive basin specific or regional CHIA's.

As a result, the State has completed a study evaluating computer models and building a data base for preparing CHIA's. CHIA's will be prepared in an order based on permitting priorities. A State staff person has been assigned the task of preparing these CHIA's.

As indicated in the Cooperative Agreement, OSM provides technical assistance. CFO will continue to monitor progress on the preparation of CHIA's.

The final resolution of this program will occur with the development of CHIA's where the most recent technical baseline information resources are used for specific cumulative impact areas (CIA's).

Program Maintenance (Amendments)

In the 1994 Annual Evaluation Year Report, the CFO reported that numerous outstanding program deficiencies existed (i.e., less effective rules [30 CFR 732.17], disapproved rules [30 CFR 950.15], and required program amendments [30 CFR 950.16]).

Wyoming LQD's and OSM's objective is to assure that these program deficiencies are resolved through approved amendments to the Wyoming Program. Schedules have been established which set priorities on amendments that are crucial to the operation of the Wyoming regulatory program. There were no amendments scheduled to be submitted to OSM during this evaluation period. The State did meet internal time frames for the Advisory Board meetings and Environmental Quality Council hearings.

Figure 4. is a list of the outstanding programmatic issues identified in letters to DEQ as required under 30 CFR 732. The State has addressed 140 issues (59 percent) at the end of

this evaluation period. It must be noted that new issues were identified this year, otherwise the State's progress would have shown a higher level of achievement (72 percent). As new changes to the program are required, these issues are grouped into related topic amendment packages and priorities are re-assessed by LQD and OSM.

CFO has provided programmatic assistance in the past from for research and development of proposed Wyoming rules. No problems or issues have been identified relating to this topic.

FIGURE 4. Status of Regulatory Program Deficiencies
(732 letters)

TOPICS (732 letters)	DATE	ISSUES COMPLETED VS TOTAL	PERCENT COMPLETE
Regulatory Reform I	12/23/85	120/130	92%
Historic Properties	6/9/87	5/7	71%
Regulatory Reform II	11/7/88	4/7	57%
Ownership & Control	5/11/89	1/17	6%
Regulatory Reform III	2/21/90	4/24	17%
Incidental Coal Extraction	2/7/90	N/A	N/A
Incidental Boundary Revisions	8/25/93	1/1	100%
Contemporaneous Reclamation	11/30/93	1/1	100%
Roads	11/9/94	0/2	0%
In Situ Mining	1/27/95	4/4	100%
Subsidence & Water Replacement	6/5/96	0/14	0%
Ownership & Control	1/13/97	0/12	0%
Multiple Topics	6/19/97	0/20	0%
TOTALS		140/239	59%

C. FOLLOW-UP TOPICS

Follow-up topics are issues identified in previous year's evaluation. Resolution of these topics are usually resolved within the next evaluation period.

ASCMS

Alternate sediment control measures (ASCMS) has been identified in previous evaluation years (1991-92-93) as an oversight topic and has been the subject of special studies by OSM. Findings from these studies indicated that ASCMS were not being properly designed, constructed, monitored and maintained. For these reasons, ASCMS became an oversight topic during the 1996 evaluation year. ASCMS, when properly applied and maintained, can be effective and are an acceptable and valuable part of the program. However, since they are maintenance intensive, the maintenance aspect of ASCMS continues to be evaluated. During a site visit, coal fines and silt deposits below an ASCM rock check dam in an undisturbed drainage was observed. This investigation was continued into the 1997 evaluation period. The appropriate permit actions to design and assure appropriate maintenance for ASCM's was accomplished and completed by LQD. This issue has been resolved and there are no immediate plans to revisit this topic in the next evaluation period.

D. ON-GOING TOPICS

On-going topics are functions of the State program that are reviewed every evaluation year.

INSPECTIONS

The Wyoming Department of Environmental Quality, Land Quality Division (LQD) continues to conduct frequent and thorough inspections without prior notification. All performance standards are reviewed during complete inspections. Portions of the water quality performance standards are reviewed by Water Quality Division (WQD) inspectors. Based on oversight inspections, LQD continues to cite all violations observed with the exception of the violations of permit conditions observed at two mines during the contemporaneous reclamation special study. Notice of Violations were not issued by LQD in May following observation of violations of permit conditions at two mines. Reclamation progress on the ground had failed to keep pace with the schedule defined in the approved permit. Two Ten-Day-Notices were issued by the CFO to the LQD. The LQD showed good cause for not issuing NOV's by responding with the finding that in September 1997 the violations no longer existed. The violations were corrected prior to the completion of the contemporaneous reclamation oversight report. The responses to the TDN's were determined appropriate.

The LQD issued twenty-one enforcement actions during the evaluation year. Eighteen

NOV's, one Minor Violation, and two Cessation Orders were issued. All enforcement actions were properly abated and terminated in a timely manner. One blasting CO and NOV was vacated by the administrator. The administrator received additional information from the permittee indicating that the proximity of blasting to a public highway, which posed an eminent danger, was in error. The disposition of one NOV issued for non-contemporaneous reclamation is pending the final decision by the Director as a result of an appeal.

The CFO conducted five random sample complete inspections, two bond release partial inspections, one citizen complaint partial inspection, four partial contemporaneous reclamation inspections, and thirty six partial flyover inspections during the evaluation year. No uncited violations were observed during these joint oversight inspections.

FINANCIAL ADMINISTRATION (GRANTS)

CFO conducted financial oversight during the evaluation period. Specifically, drawdowns, timeliness of applications and reports, audits, accounting procedures, procurement and management of property and services were reviewed. During the evaluation period, CFO visited DEQ offices in Cheyenne, Wyoming and reviewed information pertinent to this topic.

CFO conducted a drawdown analysis for the existing Title V grant. Drawdowns equaled expenditures and draws were timely.

Wyoming is submitting required reports in a timely fashion.

CFO is relying upon A-128 Audits for (1) accounting procedure controls to include payroll, accounts payable, travel, and (2) procurement and management of property and services. All findings from A-128 Audits were resolved. There were no questioned costs. Wyoming has revised their property inventory as a result of an A-128 Audit. No other problems were found.

One previous finding was checked. This issue was that vendor invoices were being paid without authorization. Vendor files were sampled and no problems were found.

**Appendix A:
Tabular Summary of Core Data to
Characterize the Program**

TABLE 1

COAL PRODUCTION (Millions of short tons)			
Period	Surface mines	Underground mines	Total
Coal production ^A for entire State:			
Calendar Year			
1995	234.5	2.3	236.8
1996	260.2	2.7	262.9
1997	274.5	2.3	276.8

^A Coal production as reported in this table is the gross tonnage which includes coal that is sold, used or transferred as reported to OSM by each mining company on form OSM-1 line 8(a). Gross tonnage does not provide for a moisture reduction. OSM verifies tonnage reported through routine auditing of mining companies. This production may vary from that reported by States or other sources due to varying methods of determining and reporting coal production.

TABLE 3

STATE PERMITTING ACTIONS

As of September 30, 1997

Type of application	Surface mines			Underground mines			Other facilities			Totals		
	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres ^A	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres
New permits	1	1	3528							1	1	3,528
Renewals	3									3		
Transfers, sales and assignments of permit rights	7	7			1					7	8	
Small operator assistance	0	0										
Exploration permits	0	0										
Exploration notices ^B												
Revisions (exclusive of incidental boundary revisions)		121			6						128	
Incidental boundary revisions		3	141.5								1	142
Totals	11	130	3,670		7					11	138	3,670

OPTIONAL - Number of midterm permit reviews completed that are not reported as revisions ____

Note: Renewal includes a permit amendment which was additional area added to an existing permit.

^A Includes only the number of acres of proposed surface disturbance.

^B State approval not required. Involves removal of less than 250 tons of coal and does not affect lands designated unsuitable for mining.

TABLE 4

RESOURCES AFFECTED		OFF-SITE IMPACTS											
		People			Land			Water			Structures		
DEGREE OF IMPACT		minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate	major
TYPE OF IMPACT	NUMBER OF EACH TYPE												
Blasting	1	1											
Land Stability	0												
Hydrology	1							1					
Encroachment	1												
Other	2		2										
Total	5				1								
OFF-SITE IMPACTS ON BOND FORFEITURE SITES													
RESOURCES AFFECTED		People			Land			Water			Structures		
DEGREE OF IMPACT		minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate	major
TYPE OF IMPACT	NUMBER OF EACH TYPE												
Blasting	0												
Land Stability	0												
Hydrology	0												
Encroachment	0												
Other	0												
Total	0												

The objective of this Table is to report all off-site impacts identified in a State regardless of the source of the information. Report the degree of impact under each resource that was affected by each type of impact. Refer to guidelines in Directive REG-8 for determining degree of impact. More than one resource may be affected by each type of impact. Therefore, the total number of impacts will likely be less than the total number of resources affected; i.e., the numbers under the resources columns will not necessarily add horizontally to equal the total number for each type of impact. As provided by the Table, report impacts identified on bond forfeiture sites separately from impacts identified on other sites. If bond forfeitures sites were not evaluated during the period, clearly note the table to indicate that fact. Impacts related to mine subsidence or other areas where impacts are not prohibited are not included in this table. Refer to report narrative for complete explanation and evaluation of the information provided by this table.

TABLE 5

ANNUAL STATE MINING AND RECLAMATION RESULTS		
Bond release phase	Applicable performance standard	Acreage released during this evaluation period
Phase I	<ul style="list-style-type: none"> ● Approximate original contour restored ● Topsoil or approved alternative replaced 	1
Phase II	<ul style="list-style-type: none"> ● Surface stability ● Establishment of vegetation 	0
Phase III	<ul style="list-style-type: none"> ● Post-mining land use/productivity restored ● Successful permanent vegetation ● Groundwater recharge, quality and quantity restored ● Surface water quality and quantity restored 	0
	Bonded Acreage Status ^A	Acres
	Total number of bonded acres at end of last review period ^B	85,491.57
	Total additional number of acres bonded during this evaluation year	8,336.62
	Number of acres bonded during this evaluation year that are considered re-mining, if available	0
	Number of acres where bond was forfeited during this evaluation year (also report this acreage on Table 7)	0
^A Bonded acreage is considered to approximate and represent the number of acres disturbed by surface coal mining and reclamation operations. ^B Bonded acres in this category are those that have not received a Phase III or other final bond release (State maintains jurisdiction).		

TABLE 6

MINE RELATED DISTURBANCES AND RECLAMATION AT WYOMING MINE SITES (YEAR BY YEAR)						
R E P O R T	P E R I O D	ACRES OF TOTAL MINE DISTURBANCE DURING REPORT PERIOD	ACRES OF CONSTRUCTED SUPPORT AREAS (FACILITIES, STOCKPILE, ROADS, ETC)	ACRES OF DISTURBANCE MINUS THE SUPPORT AREAS DURING REPORT PERIOD	ACRES OF PERMANENT RECLAMATION DURING REPORT PERIOD	RATIO OF RECL. VS. NET DIST.
1985		3152	492	2660	1456	0.55
1986		2521	439	2082	1630	0.78
1987		2610	606	2004	1355	0.68
1988		2967	580	2387	994	0.42
1989		2833	377	2456	1068	0.43
1990		2807	953	1854	1517	0.82
1991		2919	1167	1752	1641	0.94
1992		3173	754	2419	1888	0.78
1993		3327	1042	2285	1219	0.53
1994		3873	1278	2595	1234	0.48
1995		3954	1321	2633	1311	0.50
1996		3613	872	2741	1098	0.40
1997						

TABLE 7

STATE BOND FORFEITURE ACTIVITY (Permanent Program Permits)			
	Number of Sites	Dollars	Disturbed Acres
Bonds forfeited as of Sept. 30, 1997 (end of last review period) ^A	1	\$44,580	25
Bonds forfeited during Sept. 30, 1997 (identify review period)	0		
Forfeited bonds collected as Sept. 30, 1997 (end of last review period) ^A	1	\$44,580	25
Forfeited bonds collected during Sept. 30, 1997 (identify review period)	0		
Forfeiture sites reclaimed during Sept. 30, 1997 (identify review period)	0	0 ^B	
Forfeiture sites repermited during Sept. 30, 1997 (identify review period)	0		
Forfeiture sites unreclaimed as of Sept. 30, 1997 (identify end of review period)	0		
Excess reclamation costs recovered from permittee	0		
Excess forfeiture proceeds returned to permittee	0		
^A Includes data only for those forfeiture sites not fully reclaimed as of this date. ^B Cost of reclamation, excluding general administrative expenses.			

TABLE 8

Wyoming STAFFING (Full-time equivalents at end of evaluation year)	
Function	EY 97
Regulatory program	
Permit review	14.4
Inspection	8.2
Other (administrative, fiscal, personnel, etc.)	7.0
	30

TABLE 9

FUNDS GRANTED TO WYOMING BY OSM (Millions of dollars)		
EY 1997		
Type of grant	Federal funds awarded	Federal funding as a percentage of total program costs
Administration and enforcement	1,492,750	85
Small operator assistance	0	0
Totals	\$1,492,750	

Appendix B:
State Comments on the Report



01-29-02



JIM GERINGER
GOVERNOR

01-29-1998

Department of Environmental Quality

Herschler Building ● 122 West 25th Street ● Cheyenne, Wyoming 82002

ADMINISTRATION (307) 777-7758 FAX 777-7682	ABANDONED MINES (307) 777-6145 FAX 634-0799	AIR QUALITY (307) 777-7391 FAX 777-5616	INDUSTRIAL SITING (307) 777-7368 FAX 777-6937	LAND QUALITY (307) 777-7756 FAX 634-0799	SOLID & HAZARDOUS WASTE (307) 777-7752 FAX 777-5973	WATER QUALITY (307) 777-7781 FAX 777-5973
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January 28, 1998

Mr. Guy Padgett, Director
Casper Field Office
Office of Surface Mining
100 East "B" Street
Casper, Wyoming 82601-1918

RE: Draft 1997 Annual Report

Dear Mr. Padgett:

Thank you for the opportunity to review the draft report. Our comments are presented below. The report is well done and most of the comments are editorial in nature.

- RE: Title Page. Change "Administered by the Wyoming Land Quality Division of Wyoming" to "Administered by the Land Quality Division of the Wyoming Department of Environmental Quality."
- RE: Page 1, last paragraph, third line. The word "mine" should be "mines" and add the word "Basin" to the end of the sentence.
- RE: Page 2, third paragraph, third line. The phrase "is a" should be deleted.
- RE: Page 2, fourth paragraph, fifth line. The word "fore" should be "afore."
- RE: Page 3, first paragraph, third line. The words "consist" and "hydrologist" should be plural.
- RE: Page 3, second paragraph, second to the last sentence. The sentence states the bonding workshop was "designed" by OSM. A more accurate statement is that OSM "suggested" the workshop.

- RE: Page 3, fourth paragraph. The paragraph discusses the LQD Advisory Board. The first sentence has in parenthesis "Land Quality Division Board." The correct term is the "Land Quality Division Advisory Board." It may be appropriate to delete the phrase completely. A suitable abbreviation is the LQD Advisory Board. This abbreviation should be used in the seventh line of the paragraph. At the end of this line, the words "and board meetings" is redundant and should be dropped.
- RE: Page 3, fifth paragraph, fifth line. The "a" should be "an."
- RE: Page 5, Off-Site Impacts. The discussion mentions two archeological sites were impacted off-site. I'm not aware of any archeological sites outside the permit boundary being impacted.
- RE: Page 6, Reclamation Success. The first paragraph discusses the Excellence in Surface Mining Awards received by two mines which fits this category. The rest of the section discusses contemporaneous reclamation. While contemporaneous reclamation and reclamation success are related, it is suggested that they be separated into individual sections. Also our copy has a large blank space between "Table 6" and "(Appendix A, Page T-6)" in the middle of the paragraph.
- RE: Page 7, VI. OSM Assistance. The discussion on the CHIA assistance mentions \$6.6 million in funding for this project. This seems high. It appears that this figure includes equipment, software, and training that may be more TIPS related or part of the Wyoming Initiative. Most of this went to support development of electronic permitting as opposed to the CHIA itself. There are many overlaps between the electronic permitting and the CHIA development. Our estimates of OSM funding for the CHIA effort by the University of Wyoming was less than \$1 million.
- RE: Page 8, third paragraph, second line. The word "contemporaneity" should be changed to "contemporaneous reclamation."
- RE: Page 8, third paragraph, fourth line. The phrase "These site specific standards" should be changed to "and." This would combine the two sentences into one.
- RE: Page 9, second paragraph, second line. Near the end of the line the word "totals" should be "that."

- RE: Page 10, third paragraph under "Permitting." The phrase "CFO will continue to monitor progress" is repeated. It is suggested that the words "and the" be included to tie the two segments together into one sentence.
- RE: Page 12, ASCMs. First sentence. The word "have" should be "has."
Fourth line. The word "and" between constructed and monitored should be deleted.
Fourth, fifth and seventh lines. A comma should be placed after the words "reasons," "ASCMs," and "maintained" respectively.
Eighth line. The word "continue" should be plural.
Last sentence. The word "There" should be "This."
- RE: Page 12, the word "ongoing " should be hyphenated.
- RE: Table 2. There is a dash before the 3 for underground mines, federal lands and before 11,185 for total underground mine acres. The number for the average number of permits per inspectable unit appears to be on the wrong line.
- RE: Table 5. It may be clearer if the word "additional" was added to "Total number of acres bonded during this evaluation year."
- RE: Table 3. The correct number of incidental boundary revisions is 3. The earlier data we provided to OSM was in error.
- RE: Table 7. The LQD has forfeited bonds in previous EYs. Please check last year's report.

If you have any questions concerning our comments, please call.

Sincerely,



Richard A. Chancellor
Administrator
Land Quality Division

Appendix C:
CFO Response to State Comments

CFO Response to State Comments

Corrections have been made for the editorial comments identified in the State's letter for the title page, pages 1 thru 3 and 8 thru 12, and Tables 2, 3, 5 and 7.

State's Comment:

Page 5, Off-site Impacts. The discussion mentions two archaeological sites were impacted off-site. I'm not aware of any archaeological sites outside the permit boundary being impacted.

CFO's Response:

CFO has discussed the definition of off-site impacts with the State and clarified the misunderstanding. The State agrees that the archaeological sites were not authorized for mining and reclamation activity. CFO has not revised this section of the report.

State's Comment:

Page 6, Reclamation Success. The first paragraph discusses the Excellence in Surface Mining Awards received by two mines which fits this category. The rest of the section discusses contemporaneous reclamation. While contemporaneous reclamation and reclamation success are related, it is suggested that they be separated into individual sections. Also, our copy has a large blank space between "Table 6" and "(Appendix A, Page T-6)" in the middle of the paragraph.

CFO's Response:

CFO has discussed this section with the State. The State is correct that contemporaneous reclamation is not the subject of this section. The Contemporaneous reclamation discussion was moved to Section **VII General Oversight Topic Reviews**, under Contemporaneous reclamation.

State's Comment:

Page 7, VI. OSM Assistance. The discussion on the CHIA assistance mentions \$6.6 million in funding for this project. This seems high. It appears that this figure includes equipment, software, and training that may be more TIPS related or of the Wyoming initiative. Most of this went to support development of electronic permitting and the CHIA development. Our estimates of OSM funding for the CHIA effort by the University of Wyoming was less than \$1 million.

CFO's Response:

The \$6.6 million was an error. CFO records show that Federal funding for the CHIA (including TIPS and the Wyoming initiative) was \$966,106. CFO has revised the report.